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NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 Jan 25 BLAST(R) searching in REGISTRY available in STN on the Web  
NEWS 3 Jan 29 FSTA has been reloaded and moves to weekly updates  
NEWS 4 Feb 01 DKILIT now produced by FIZ Karlsruhe and has a new update frequency  
NEWS 5 Feb 19 Access via Tymnet and SprintNet Eliminated Effective 3/31/02  
NEWS 6 Mar 08 Gene Names now available in BIOSIS  
NEWS 7 Mar 22 TOXLIT no longer available  
NEWS 8 Mar 22 TRCTHERMO no longer available  
NEWS 9 Mar 28 US Provisional Priorities searched with P in CA/CAPLUS and USPATFULL  
NEWS 10 Mar 28 LIPINSKI/CALC added for property searching in REGISTRY  
NEWS 11 Apr 02 PAPERCHEM no longer available on STN. Use PAPERCHEM2 instead.  
NEWS 12 Apr 08 "Ask CAS" for self-help around the clock  
NEWS 13 Apr 09 BEILSTEIN: Reload and Implementation of a New Subject Area  
NEWS 14 Apr 09 ZDB will be removed from STN  
NEWS 15 Apr 19 US Patent Applications available in IFICDB, IFIPAT, and IFIUDB  
NEWS 16 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS  
NEWS 17 Apr 22 BIOSIS Gene Names now available in TOXCENTER  
NEWS 18 Apr 22 Federal Research in Progress (FEDRIP) now available  
  
NEWS EXPRESS February 1 CURRENT WINDOWS VERSION IS V6.0d, CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002  
  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
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NEWS LOGIN Welcome Banner and News Items  
NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

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FILE 'HOME' ENTERED AT 14:20:26 ON 22 MAY 2002

=> file registry  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 14:20:31 ON 22 MAY 2002  
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STRUCTURE FILE UPDATES: 20 MAY 2002 HIGHEST RN 419531-51-4  
DICTIONARY FILE UPDATES: 20 MAY 2002 HIGHEST RN 419531-51-4

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES  
for more information. See STNote 27, Searching Properties in the CAS  
Registry File, for complete details:

<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> e tangeretin

E1	2	TANGELO/BI
E2	1	TANGERE/BI
E3	4 -->	TANGERETIN/BI
E4	2	TANGERIN/BI
E5	1	TANGERINA/BI
E6	11	TANGERINE/BI
E7	2	TANGERINOL/BI
E8	1	TANGERINUS/BI
E9	2	TANGERITIN/BI
E10	1	TANGESTO/BI
E11	1	TANGESTOCOBALT/BI
E12	1	TANGESTOCOBALTATE/BI

=> d e3

NO L# DEFINED

=> e e3

E1	2	TANGELO/BI
E2	1	TANGERE/BI
E3	4 -->	TANGERETIN/BI
E4	2	TANGERIN/BI
E5	1	TANGERINA/BI
E6	11	TANGERINE/BI
E7	2	TANGERINOL/BI
E8	1	TANGERINUS/BI
E9	2	TANGERITIN/BI
E10	1	TANGESTO/BI
E11	1	TANGESTOCOBALT/BI
E12	1	TANGESTOCOBALTATE/BI

=> scan e3

E1	2	TANGELO/BI
E2	1	TANGERE/BI

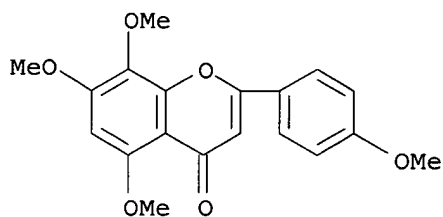
E3 4 --> TANGERETIN/BI  
 E4 2 TANGERIN/BI  
 E5 1 TANGERINA/BI  
 E6 11 TANGERINE/BI  
 E7 2 TANGERINOL/BI  
 E8 1 TANGERINUS/BI  
 E9 2 TANGERITIN/BI  
 E10 1 TANGESTO/BI  
 E11 1 TANGESTOCOBALT/BI  
 E12 1 TANGESTOCOBALTATE/BI

=> s e3

L1 4 TANGERETIN/BI

=> d L1 1-4

L1 ANSWER 1 OF 4 REGISTRY COPYRIGHT 2002 ACS  
 RN 6601-66-7 REGISTRY  
 CN 4H-1-Benzopyran-4-one, 5,7,8-trimethoxy-2-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Flavone, 4',5,7,8-tetramethoxy- (7CI, 8CI)  
 OTHER NAMES:  
 CN 4',5,7,8-Tetramethoxyflavone  
 CN **6-Demethoxytangeretin**  
 CN 6-Demethoxytangeritin  
 CN Tetra-O-methylisoscuteallarein  
 FS 3D CONCORD  
 MF C19 H18 O6  
 LC STN Files: AGRICOLA, BEILSTEIN\*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS,  
 NAPRALERT, SPECINFO, TOXCENTER  
 (\*File contains numerically searchable property data)

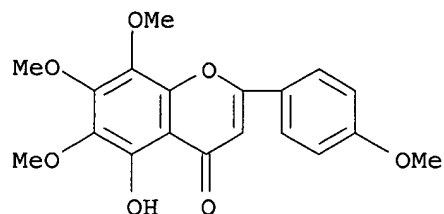


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

47 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 47 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L1 ANSWER 2 OF 4 REGISTRY COPYRIGHT 2002 ACS  
 RN 2798-20-1 REGISTRY  
 CN 4H-1-Benzopyran-4-one, 5-hydroxy-6,7,8-trimethoxy-2-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Flavone, 5-hydroxy-4',6,7,8-tetramethoxy- (7CI, 8CI)  
 OTHER NAMES:

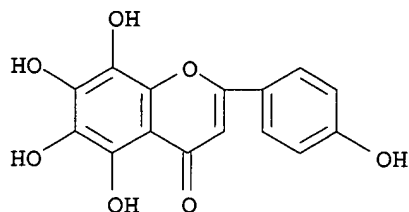
CN **5-Demethyltangeretin**  
 CN 5-Hydroxy-4',6,7,8-tetramethoxyflavone  
 CN 5-Hydroxy-6,7,8,4'-tetramethoxyflavone  
 CN **Demethyltangeretin**  
 CN Gardenin B  
 MF C19 H18 O7  
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, CA,  
 CAOLD, CAPLUS, CASREACT, DDFU, DRUGU, MRCK\*, NAPRALERT, TOXCENTER,  
 USPATFULL  
 (\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

61 REFERENCES IN FILE CA (1967 TO DATE)  
 61 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 5 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

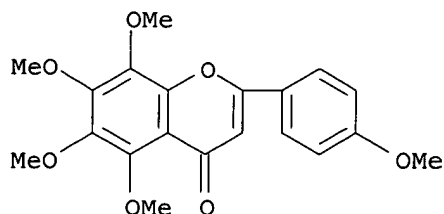
L1 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2002 ACS  
 RN 577-26-4 REGISTRY  
 CN 4H-1-Benzopyran-4-one, 5,6,7,8-tetrahydroxy-2-(4-hydroxyphenyl)- (9CI)  
 (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Flavone, 4',5,6,7,8-pentahydroxy- (8CI)  
 OTHER NAMES:  
 CN 5,6,7,8,4'-Pentahydroxyflavone  
 CN Demethylponkanetin  
 CN **Nortangeretin**  
 FS 3D CONCORD  
 MF C15 H10 O7  
 LC STN Files: BEILSTEIN\*, CA, CAPLUS, NAPRALERT, TOXCENTER  
 (\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

5 REFERENCES IN FILE CA (1967 TO DATE)  
 5 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 4 OF 4 REGISTRY COPYRIGHT 2002 ACS  
 RN 481-53-8 REGISTRY  
 CN 4H-1-Benzopyran-4-one, 5,6,7,8-tetramethoxy-2-(4-methoxyphenyl)- (9CI)  
 (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Flavone, 4',5,6,7,8-pentamethoxy- (7CI, 8CI)  
 CN **Tangeretin (6CI)**  
 OTHER NAMES:  
 CN 4',5,6,7,8-Pentamethoxyflavone  
 CN 5,6,7,8,4'-Pentamethoxyflavone  
 CN Ponkanetin  
 CN Tangeritin  
 MF C20 H20 O7  
 CI COM  
 LC STN Files: ADISINSIGHT, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS,  
 BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS,  
 CHEMLIST, CSCHM, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA,  
 MEDLINE, NAPRALERT, PROMT, RTECS\*, SPECINFO, TOXCENTER, USPATFULL  
 (\*File contains numerically searchable property data)  
 Other Sources: EINECS\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

284 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 285 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 14 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s 481-53-8/rn  
 L2 1 481-53-8/RN

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
11.46	11.67

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 14:22:12 ON 22 MAY 2002  
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=> s L2

L3 286 L2

=> s L3 and ascorbic

67225 ASCORBIC

L4 3 L3 AND ASCORBIC

=> d L4 1-3 ti

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS

TI Stabilized medicaments containing cysteinyl derivatives

L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS

TI Chemical characterization by liquid chromatography of moro blood orange juices

L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS

TI Effects of flavonoids on nonenzymic lipid peroxidation: structure-activity relationship

=> s L3 and ellagic

1736 ELLAGIC

1 ELLAGICS

1736 ELLAGIC

(ELLAGIC OR ELLAGICS)

L5 1 L3 AND ELLAGIC

=> d L5

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS

AN 1999:172375 CAPLUS

DN 130:295991

TI Antioxidant property of dietary phenolic agents in a human LDL-oxidation ex vivo model: interaction of protein binding activity

AU Wang, Weiqun; Goodman, Marc T.

CS Cancer Research Center, University of Hawaii, Honolulu, HI, 96813, USA

SO Nutrition Research (New York) (1999), 19(2), 191-202

CODEN: NTRSDC; ISSN: 0271-5317

PB Elsevier Science Inc.

DT Journal

LA English

RE.CNT 43      THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d L4 2 ibib,abs

L4    ANSWER 2 OF 3    CAPLUS    COPYRIGHT 2002 ACS

ACCESSION NUMBER:            1991:227535    CAPLUS

DOCUMENT NUMBER:            114:227535

TITLE:                      Chemical characterization by liquid chromatography of  
                             moro blood orange juices

AUTHOR(S):                  Lee, H. S.; Carter, R. D.; Barros, S. M.; Dezman, D.  
                             J.; Castle, W. S.

CORPORATE SOURCE:           Florida Dep. Citrus, Univ. Florida, Lake Alfred, FL,  
                             33850, USA

SOURCE:                     J. Food Compos. Anal. (1990), 3(1), 9-19

CODEN: JFCAEE; ISSN: 0889-1575

DOCUMENT TYPE:              Journal

LANGUAGE:                   English

AB    Moro variety blood orange juices from California and Florida were prepd.  
      in the pilot plant. Liq. chromatog. methodol. was used for the sepn.,  
      identification, and quantitation of sugars, nonvolatile acids,  
      methoxylated flavones, flavonone glycosides, carotenes, and  
      anthocyanidins. A photodiode array detector was employed to characterize  
      the spectral properties of each class of compd. The chem. compositional  
      data, with the exception of those on anthocyanin pigments, are consistent  
      with those on other common sweet oranges. California-grown blood oranges  
      generally have a distinctive deeper pigmentation than do those grown in  
      Florida.

=> FIL STNGUIDE

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
8.93	20.60

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-0.62	-0.62

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FILE 'STNGUIDE' ENTERED AT 14:24:46 ON 22 MAY 2002  
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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: May 17, 2002 (20020517/UP).

=> d his

(FILE 'HOME' ENTERED AT 14:20:26 ON 22 MAY 2002)

FILE 'REGISTRY' ENTERED AT 14:20:31 ON 22 MAY 2002

E TANGERETIN

E E3

SCAN E3

L1                    4 S E3

L2                    1 S 481-53-8/RN

FILE 'CAPLUS' ENTERED AT 14:22:12 ON 22 MAY 2002



L3 286 S L2  
L4 3 S L3 AND ASCORBIC  
L5 1 S L3 AND ELLAGIC

FILE 'STNGUIDE' ENTERED AT 14:24:46 ON 22 MAY 2002

=> s L3 and hydroquinone  
'RN' IS NOT A VALID FIELD CODE  
0 481-53-8/RN  
0 HYDROQUINONE  
L6 0 L3 AND HYDROQUINONE

=> file caplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.60	21.20
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-0.62

FILE 'CAPLUS' ENTERED AT 14:30:47 ON 22 MAY 2002  
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=> s L3 and hydroquinone  
38643 HYDROQUINONE  
2082 HYDROQUINONES  
39499 HYDROQUINONE  
(HYDROQUINONE OR HYDROQUINONES)  
L7 1 L3 AND HYDROQUINONE

=> d L7

L7 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS  
AN 1998:708961 CAPLUS  
DN 129:335781

TI Stabilized medicaments containing cysteinyl derivatives  
IN Stanislaus, Fritz  
PA Klinge Pharma G.m.b.H., Germany  
SO PCT Int. Appl., 46 pp.  
CODEN: PIXXD2

DT Patent  
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9847534	A1	19981029	WO 1997-EP1941	19970418
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	AU 9723879	A1	19981113	AU 1997-23879	19970418
	EP 971743	A1	20000119	EP 1997-919382	19970418
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
	JP 2001524087	T2	20011127	JP 1998-544767	19970418
	US 2002037855	A1	20020328	US 2001-816769	20010322
PRAI	US 2000-403160	B1	20000505		
	WO 1997-EP1941	A	19970418		

=> file registry

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
3.38	24.58

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
0.00	-0.62

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DICTIONARY FILE UPDATES: 20 MAY 2002 HIGHEST RN 419531-51-4

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

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conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES  
for more information. See STNote 27, Searching Properties in the CAS  
Registry File, for complete details:

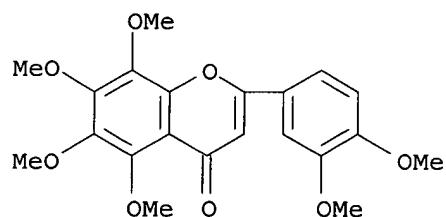
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> s nobiletin/cn

L8 1 NOBILETIN/CN

=> d L8

L8 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS  
RN 478-01-3 REGISTRY  
CN 4H-1-Benzopyran-4-one, 2-(3,4-dimethoxyphenyl)-5,6,7,8-tetramethoxy-  
(9CI)  
(CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Flavone, 3',4',5,6,7,8-hexamethoxy- (7CI, 8CI)  
CN **Nobiletin** (6CI)  
OTHER NAMES:  
CN 3',4',5,6,7,8-Hexamethoxyflavone  
CN 5,6,7,8,3',4'-Hexamethoxyflavone  
MF C21 H22 O8  
CI COM  
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS,  
BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CSCHM,  
DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, NAPRALERT,  
PROMT, SPECINFO, TOXCENTER, USPATFULL  
(\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

221 REFERENCES IN FILE CA (1967 TO DATE)  
222 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
14 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	5.96	30.54
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-0.62

FILE 'CAPLUS' ENTERED AT 14:32:00 ON 22 MAY 2002  
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=> d his

(FILE 'HOME' ENTERED AT 14:20:26 ON 22 MAY 2002)

FILE 'REGISTRY' ENTERED AT 14:20:31 ON 22 MAY 2002

E TANGERETIN

E E3

SCAN E3

L1 4 S E3

L2 1 S 481-53-8/RN

FILE 'CAPLUS' ENTERED AT 14:22:12 ON 22 MAY 2002

L3 286 S L2

L4 3 S L3 AND ASCORBIC

L5 1 S L3 AND ELLAGIC

FILE 'STNGUIDE' ENTERED AT 14:24:46 ON 22 MAY 2002

L6 0 S L3 AND HYDROQUINONE

FILE 'CAPLUS' ENTERED AT 14:30:47 ON 22 MAY 2002

L7 1 S L3 AND HYDROQUINONE

FILE 'REGISTRY' ENTERED AT 14:31:42 ON 22 MAY 2002

L8 1 S NOBILETIN/CN

FILE 'CAPLUS' ENTERED AT 14:32:00 ON 22 MAY 2002

=> s L8

L9 224 L8

=> s L9 and ellagic

1736 ELLAGIC

1 ELLAGICS

1736 ELLAGIC

(ELLAGIC OR ELLAGICS)

L10 1 L9 AND ELLAGIC

=> d L9

L9 ANSWER 1 OF 224 CAPLUS COPYRIGHT 2002 ACS

AN 2002:205699 CAPLUS

TI Detection of orange juice adulteration by tangelo juice using multivariate

analysis of polymethoxylated flavones and carotenoids  
 AU Pan, Geoffrey G.; Kilmartin, Paul A.; Smith, Bronwen G.; Melton, Laurence D.  
 CS Food Science Programme, Department of Chemistry, The University of Auckland, Auckland, N. Z.  
 SO Journal of the Science of Food and Agriculture (2002), 82(4), 421-427  
 CODEN: JSFAAE; ISSN: 0022-5142  
 PB John Wiley & Sons Ltd.  
 DT Journal  
 LA English  
 RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d L9 abs

L9 ANSWER 1 OF 224 CAPLUS COPYRIGHT 2002 ACS  
 AB Reverse phase HPLC was applied to quantify levels of polymethoxylated flavones and carotenoids in orange and tangelo juices. Lower levels of sinensetin and tetramethyl-o-scutellarein and higher levels of heptamethoxyflavone and tangeretin relative to nobiletin indicated the addn. of tangelo to orange juice. .beta.-cryptoxanthin and its esters, identified by pos. ion electrospray mass spectrometry, were present in larger amts. relative to .beta.-carotene in tangelo than in orange juice. Using canonical discriminant anal., the addn. of 100 g kg-1 tangelo to orange juice can be detected.

=> s L9 and hydroquinone  
 38643 HYDROQUINONE  
 2082 HYDROQUINONES  
 39499 HYDROQUINONE  
 (HYDROQUINONE OR HYDROQUINONES)  
 L11 0 L9 AND HYDROQUINONE

=> file registry		
COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	6.73	37.27
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.62	-1.24

FILE 'REGISTRY' ENTERED AT 14:33:36 ON 22 MAY 2002  
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STRUCTURE FILE UPDATES: 20 MAY 2002 HIGHEST RN 419531-51-4  
 DICTIONARY FILE UPDATES: 20 MAY 2002 HIGHEST RN 419531-51-4

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES

for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

```
=> s vitamin(w)C
      1366 VITAMIN
      3 VITAMINS
      1368 VITAMIN
      (VITAMIN OR VITAMINS)
      1472111 C
L12      29 VITAMIN(W)C
```

```
=> s ascorbic acid
      3334 ASCORBIC
      5426672 ACID
      7795 ACIDS
      5432349 ACID
      (ACID OR ACIDS)
L13      3316 ASCORBIC ACID
      (ASCORBIC(W)ACID)
```

```
=> s L12 and L13
L14      25 L12 AND L13
```

```
=> s 50-81-7/rn
L15      1 50-81-7/RN
```

=> file caplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	17.52	54.79
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-1.24

FILE 'CAPLUS' ENTERED AT 14:35:47 ON 22 MAY 2002  
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FILE COVERS 1907 - 22 May 2002 VOL 136 ISS 21  
FILE LAST UPDATED: 20 May 2002 (20020520/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For

information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> s L15

L16 44854 L15

=> d his

(FILE 'HOME' ENTERED AT 14:20:26 ON 22 MAY 2002)

FILE 'REGISTRY' ENTERED AT 14:20:31 ON 22 MAY 2002

E TANGERETIN

E E3

SCAN E3

L1 4 S E3

L2 1 S 481-53-8/RN

FILE 'CAPLUS' ENTERED AT 14:22:12 ON 22 MAY 2002

L3 286 S L2

L4 3 S L3 AND ASCORBIC

L5 1 S L3 AND ELLAGIC

FILE 'STNGUIDE' ENTERED AT 14:24:46 ON 22 MAY 2002

L6 0 S L3 AND HYDROQUINONE

FILE 'CAPLUS' ENTERED AT 14:30:47 ON 22 MAY 2002

L7 1 S L3 AND HYDROQUINONE

FILE 'REGISTRY' ENTERED AT 14:31:42 ON 22 MAY 2002

L8 1 S NOBILETIN/CN

FILE 'CAPLUS' ENTERED AT 14:32:00 ON 22 MAY 2002

L9 224 S L8

L10 1 S L9 AND ELLAGIC

✓L11 0 S L9 AND HYDROQUINONE

FILE 'REGISTRY' ENTERED AT 14:33:36 ON 22 MAY 2002

L12 29 S VITAMIN(W)C

L13 3316 S ASCORBIC ACID

L14 25 S L12 AND L13

L15 1 S 50-81-7/RN

FILE 'CAPLUS' ENTERED AT 14:35:47 ON 22 MAY 2002

L16 44854 S L15

=> s L3 and L16

L17 6 L3 AND L16

=> d L17 1-6 ibib,abs

L17 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:71884 CAPLUS

DOCUMENT NUMBER: 136:112639

TITLE: Nutraceutical natural product composition for cancer treatment

INVENTOR(S): Clayton, Paul Rodney; Rooperai, Harcharan; Dexter, David

PATENT ASSIGNEE(S): Forum Bioscience, UK

SOURCE: PCT Int. Appl., 15 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002005827	A2	20020124	WO 2001-GB3150	20010718
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
PRIORITY APPLN. INFO.:			GB 2000-17620	A 20000718
			GB 2000-23574	A 20000926
			GB 2000-26600	A 20001031

AB A program of micronutrients designed specifically to modify all the known steps in the cancer sequence comprises administering an effective amt. of one or more flavonoids, one or more lectins, one or more isoflavones, one or more carotenoids, betaine and selenium to a mammal suffering from cancer as a combination therapy in which the components are administered together, concurrently or sequentially.

L17 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:338337 CAPLUS  
DOCUMENT NUMBER: 134:357559  
TITLE: Modification of cholesterol concentrations with citrus

phytochemicals  
INVENTOR(S): McGill, Carla R.; Green, Nancy R.  
PATENT ASSIGNEE(S): Tropicana Products, Inc., USA  
SOURCE: PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001032160	A2	20010510	WO 2000-US41784	20001101
WO 2001032160	A3	20020321		
W:	AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 2002006953	A1	20020117	US 1999-435304	19991105
PRIORITY APPLN. INFO.:			US 1999-435304	A 19991105
AB	Methods, products and compns. are provided which, when administered to a mammal, including humans, raises HDL serum cholesterol levels, while			



typically also lowering the ratio of LDL to HDL serum cholesterol levels. An effective amt. of one or more of a monoterpene, a terpene and a flavonoid are included in the treatment compn.

L17 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:208119 CAPLUS  
DOCUMENT NUMBER: 134:236643  
TITLE: Stable carotene-xanthophyll beadlet compositions and methods of use  
INVENTOR(S): Lang, John C.  
PATENT ASSIGNEE(S): Alcon Universal Ltd., Switz.  
SOURCE: PCT Int. Appl., 39 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001019383	A1	20010322	WO 2000-US24439	20000906
W: AU, BR, CA, JP, MX, TR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
PRIORITY APPLN. INFO.:		US 1999-397472 A 19990917		
AB Beadlets comprising xanthophylls and carotenes and/or retinoids, dietary supplements comprising these beadlets and methods of use are disclosed.				
REFERENCE COUNT:	4	THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE		

FORMAT

L17 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:661792 CAPLUS  
DOCUMENT NUMBER: 133:349576  
TITLE: Inhibition of .beta.-carotene-15,15'-dioxygenase activity by dietary flavonoids  
AUTHOR(S): Nagao, Akihiko; Maeda, Maki; Lim, Boey Peng; Kobayashi, Hidetaka; Terao, Junji  
CORPORATE SOURCE: National Food Research Institute, Ministry of Agriculture, Forestry and Fisheries, Tsukuba, Ibaraki,  
305-8642, Japan  
SOURCE: Journal of Nutritional Biochemistry (2000), 11(6), 348-355  
CODEN: JNBIEL; ISSN: 0955-2863  
PUBLISHER: Elsevier Science Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The .beta.-carotene-15,15'-dioxygenase is an enzyme responsible for providing vertebrates with vitamin A by catalyzing oxidative cleavage of .beta.-carotene at its central double bond to 2 mols. of retinal in intestinal cells. We evaluated the effects of antioxidants and dietary flavonoids on the .beta.-carotene dioxygenase activity in vitro using pig intestinal mucosa homogenates as the enzyme source. The synthetic antioxidant 2,6-di-tert-butyl-4-methylphenol (BHT) strongly inhibited the activity at 10<sup>-6</sup> M (mixed-type inhibition), whereas butylated hydroxyanisole (BHA), nordihydroguaiaretic acid, Pr gallate, and curcumin were moderately inhibitory. Flavonoids (luteolin, quercetin, rhamnetin, phloretin) remarkably inhibited the dioxygenase activity noncompetitively,

whereas flavanones, isoflavones, catechins, and anthocyanidins were less inhibitory. The structure-activity relationship indicated that catechol structure of the B ring and planar flavone structure were essential for the inhibition. The enzyme inhibition was also indicated in the cultured Caco-2 cells by the decreased conversion of .beta.-carotene to retinol when incubated with BHT and rhamnetin at 2 and 5 .mu.M, resp. Thus, some antioxidants from food sources may modulate the conversion of .beta.-carotene to vitamin A in intestinal cells.

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

L17 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:708961 CAPLUS

DOCUMENT NUMBER: 129:335781

TITLE: Stabilized medicaments containing cysteinyl derivatives

INVENTOR(S): Stanislaus, Fritz

PATENT ASSIGNEE(S): Klinge Pharma G.m.b.H., Germany

SOURCE: PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9847534	A1	19981029	WO 1997-EP1941	19970418
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9723879	A1	19981113	AU 1997-23879	19970418
EP 971743	A1	20000119	EP 1997-919382	19970418
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001524087	T2	20011127	JP 1998-544767	19970418
US 2002037855	A1	20020328	US 2001-816769	20010322
PRIORITY APPLN. INFO.:				
			US 2000-403160	B1 20000505
			WO 1997-EP1941	A 19970418
AB The antiinflammatory activity of NSAIDs is synergistically enhanced by combination with cysteine derivs., esp. glutathione or N-acetylcysteine. The stability of these combinations is improved by addn. of .gtoreq.3 antioxidants selected from (a) ascorbic acid or its salts or esters, (b) .gtoreq.1 tocopherol, (c) .gtoreq.1 carotenoid and/or vitamin A, and (d) .gtoreq.1 flavonoid, flavanol, catechol, or anthocyanin or their glycosides. The combinations may be formulated e.g. as effervescent tablets.				

L17 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1991:227535 CAPLUS

DOCUMENT NUMBER: 114:227535

TITLE: Chemical characterization by liquid chromatography of moro blood orange juices

AUTHOR(S): Lee, H. S.; Carter, R. D.; Barros, S. M.; Dezman, D.  
J.; Castle, W. S.  
CORPORATE SOURCE: Florida Dep. Citrus, Univ. Florida, Lake Alfred, FL,  
33850, USA  
SOURCE: J. Food Compos. Anal. (1990), 3(1), 9-19  
CODEN: JFCAEE; ISSN: 0889-1575  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Moro variety blood orange juices from California and Florida were prepd. in the pilot plant. Liq. chromatog. methodol. was used for the sepn., identification, and quantitation of sugars, nonvolatile acids, methoxylated flavones, flavonone glycosides, carotenes, and anthocyanidins. A photodiode array detector was employed to characterize the spectral properties of each class of compd. The chem. compositional data, with the exception of those on anthocyanin pigments, are consistent with those on other common sweet oranges. California-grown blood oranges generally have a distinctive deeper pigmentation than do those grown in Florida.

=> d L17 1-6 ti

L17 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2002 ACS  
TI Nutraceutical natural product composition for cancer treatment  
  
L17 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2002 ACS  
TI Modification of cholesterol concentrations with citrus phytochemicals  
  
L17 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2002 ACS  
TI Stable carotene-xanthophyll beadlet compositions and methods of use  
  
L17 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2002 ACS  
TI Inhibition of .beta.-carotene-15,15'-dioxygenase activity by dietary flavonoids  
  
L17 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS  
TI Stabilized medicaments containing cysteinyl derivatives  
  
L17 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2002 ACS  
TI Chemical characterization by liquid chromatography of moro blood orange juices

=> file kosmet

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
16.23	71.02

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-3.72	-4.96

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FILE 'KOSMET' ENTERED AT 14:36:58 ON 22 MAY 2002

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FILE LAST UPDATED: 18 APR 2002

<20020418/UP>

FILE COVERS 1968 TO DATE.

=> s tangeretin

L18 1 TANGERETIN

=> d L18 ibib,abs

L18 ANSWER 1 OF 1 KOSMET COPYRIGHT 2002 IFSCC  
ACCESSION NUMBER: 17677 KOSMET  
FILE SEGMENT: scientific, technical  
TITLE: ON THE GENUINENESS OF CITRUS ESSENTIAL OILS PART LII.  
CHEMICAL CHARACTERIZATION OF ESSENTIAL OIL OF THREE  
CULTIVARS OF CITRUS CLEMENTINE HORT  
AUTHOR: VERZERA A (DIPARTIMENTO FARMACO-CHIMICO, FACOLTA DI  
FARMACIA, UNIVERSITA DI MESSINA VIALE ANNUNZIATA,  
MESSINA, 1-98168, ITALY); MONDELLO L; TROZZI A; DUGO

P  
SOURCE: FLAVOUR FRAGRANCE J, 1997, 12(3), 163-172, 17 REFS  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AN 17677 KOSMET FS scientific, technical  
AB The composition of Citrus clementine Hort essential oil, laboratory prepared from fruits of different cultivars, has been studied. The following cultivars were examined: Comune, Oroval and Monreal. The volatile fraction was analysed by HRGC and HRGC-MS (quadrupole); 69 componerts were identified. The composition as single components and as classes of substances for each sample and the average composition for each cultivar are reported. The enantiomeric distribution of linalol was studied by HRGC with beta-cyclodextrin columns. Poly-methoxylated flavones, present in the non-volatile residue, were analysed by normal phase HPLC. Six components were identified: **tangeretin**, 3,3',4',5,6,7-heptamethoxyflavone, nobiletin, tetra-O-methylscutellarein, sinensetin and 3,3',4',5,6,7-hexamethoxy-flavone. Clementine oil composition was then compared with that of Italian sweet orange and mandarin oil

=> s nobiletin

L19 1 NOBILETIN

=> d L19 ibib,abs

L19 ANSWER 1 OF 1 KOSMET COPYRIGHT 2002 IFSCC  
ACCESSION NUMBER: 17677 KOSMET  
FILE SEGMENT: scientific, technical  
TITLE: ON THE GENUINENESS OF CITRUS ESSENTIAL OILS PART LII.  
CHEMICAL CHARACTERIZATION OF ESSENTIAL OIL OF THREE  
CULTIVARS OF CITRUS CLEMENTINE HORT  
AUTHOR: VERZERA A (DIPARTIMENTO FARMACO-CHIMICO, FACOLTA DI  
FARMACIA, UNIVERSITA DI MESSINA VIALE ANNUNZIATA,  
MESSINA, 1-98168, ITALY); MONDELLO L; TROZZI A; DUGO

P  
SOURCE: FLAVOUR FRAGRANCE J, 1997, 12(3), 163-172, 17 REFS  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AN 17677 KOSMET FS scientific, technical  
AB The composition of Citrus clementine Hort essential oil, laboratory prepared from fruits of different cultivars, has been studied. The following cultivars were examined: Comune, Oroval and Monreal. The volatile fraction was analysed by HRGC and HRGC-MS (quadrupole); 69 componerts were identified. The composition as single components and as classes of substances for each sample and the average composition for each cultivar are reported. The enantiomeric distribution of linalol was

studied by HRGC with beta-cyclodextrin columns. Poly-methoxylated flavones, present in the non-volatile residue, were analysed by normal phase HPLC. Six components were identified: tangeretin, 3,3',4',5,6,7-heptamethoxyflavone, **nobiletin**, tetra-O-methylscutellarein, sinensetin and 3,3',4',5,6,7-hexamethoxy-flavone. Clementine oil composition was then compared with that of Italian sweet orange and mandarin oil

```
=> s vitamin(w)C
      438 VITAMIN
      491 VITAMINS
      642 VITAMIN
          (VITAMIN OR VITAMINS)
```

```
      1431 C
L20      106 VITAMIN(W)C
```

```
=> s L18 and L20
L21      0 L18 AND L20
```

```
=> s L19 and L20
L22      0 L19 AND L20
```

```
=> s L20 and flavon?
      115 FLAVON?
L23      4 L20 AND FLAVON?
```

```
=> d L23 1-4 ti
```

```
L23      ANSWER 1 OF 4  KOSMET  COPYRIGHT 2002 IFSCC
TI      ANTIOXIDANTS: FORMULATION OF COSMETIC DELIVERY SYSTEMS
```

```
L23      ANSWER 2 OF 4  KOSMET  COPYRIGHT 2002 IFSCC
TI      PROTECTION OF UNSTABLE VITAMINS, ENZYMES AND NATURAL FREE RADICAL
        SCAVENGERS BY NOVEL DELIVERY SYSTEMS
```

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L23      ANSWER 3 OF 4  KOSMET  COPYRIGHT 2002 IFSCC
TI      EXOTIC PLANT EXTRACTS IN COSMETIC PRODUCTS
```

```
L23      ANSWER 4 OF 4  KOSMET  COPYRIGHT 2002 IFSCC
TI      CONTRIBUTION TO THE IDENTIFICATION AND APPLICATIONS OF ACTIVE MATERIALS
        CONTAINED IN ROSA AFFRUBIGINOSA L. (ROSA MOSQUETA) OIL
        CONTRIBUCION A LA IDENTIFICACION Y APLICACIONES DE LOS PRINCIPIOS
        ACTIVOS CONTENIDOS EN EL ACEITE DE ROSA AFF RUBIGINOSA (ROSA MOSQUETA)
```

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=> d L23 1-4 ibib,abs
```

```
L23      ANSWER 1 OF 4  KOSMET  COPYRIGHT 2002 IFSCC
ACCESSION NUMBER:      24582 KOSMET
FILE SEGMENT:          scientific, technical
TITLE:                 ANTIOXIDANTS: FORMULATION OF COSMETIC DELIVERY
SYSTEMS
AUTHOR:                GUPTA S (SHYAM GUPTA, ARIZONA NATURAL RESOURCES,
INC.,
                        USA, FAX: +1-602-569-9697, EMAIL: shyam@aznat.com)
SOURCE:                HAPPI, 2001, 38, 7, 56-61, 16 REFS
DOCUMENT TYPE:         Journal
LANGUAGE:              English
AN      24582 KOSMET    FS scientific, technical
```

AB The incorporation of botanical antioxidants in cosmetic products is gaining popularity due to anti-aging and other skin tone enhancement benefits, concordant to their use as nutritional supplements. Cosmetic products formulated with familiar antioxidants such as vitamin E, coenzyme Q10, ascorbic acid, alpha-lipoic acid and soy isoflavones have appeared in the marketplace with promissory claims. Designing a topical antioxidant product can be challenging: wide spectrum antioxidant products should control cellular oxidation resulting from biochemical mechanisms including oxygen, free radicals, UV, atmospheric pollutants, oxidative enzymes, catabolic oxidation and chemical oxidation. The aspects of source and performance attributes of new and uncommon botanical antioxidants are outlined in a table. A polyphenolic or carotene chemical structural moiety is present in the largest number of antioxidants. These antioxidants work by reconvertng a damaging free radical to its original, non-radical state before that free radical reacts further with oxygen to form oxidative hyperperoxides, or

undergoes

decomposition to generate other free radicals, respectively. During this process the antioxidant itself is converted into a stable free radical, which does not usually react with oxygen or undergo decomposition. This is affected by the resonance stabilization of its free radical structure.

It is important to note that the extent of resonance stabilization of the

free radical state of an antioxidant determines its antioxidant prowess: greater stabilization, stronger and longer-lasting action. This chemical understanding is helpful both in the selection and optimally performing antioxidants in a formulation and the evaluation of new botanical ingredients for their potential antioxidant activity. A combination of antioxidants is more effective than a single antioxidant on an equal weight basis due to an antioxidant cascade mechanism. Botanical antioxidants are discussed with their benefits in the following text of the article. **Flavonoids**, such as quercetin, and its glycosides rutin and isoquercetin is five times stronger an antioxidant than **vitamin C** and vitamin E. Hesperidin, diosmin and their respective aglycones, hesperetin and diosmetin, are potent antioxidant **flavonoids** obtained from lemon and orange plants. Carotenoids: Astaxanthin, lycopene and lutein are all chemically related to carotene and vitamin A. Polyphenols: The largest number of commercially important antioxidants contains a polyphenolic chemical structure. Curcumin, tetrahydrocurcumin and resveratrol are all potent antioxidants. In an in-vitro screening involving antioxidants obtained from 700 different plants, resveratrol was found to have the most potent antioxidant activity. Further antioxidants of this polyphenolic group are rosmarinic acid, oleuropein and ellagic acid. The sulfur compounds, alpha-lipoic acid and glutathione, possess interesting antioxidant properties due to the free radical stabilizing effect of their sulfur atoms. At the end of the article a formulation is given for an antioxidant cream containing a mix of the discussed antioxidants such as glutathione, diosmin, resveratrol, andrographolide, hesperetin, and mangiferin

L23 ANSWER 2 OF 4 KOSMET COPYRIGHT 2002 IFSCC

ACCESSION NUMBER: 23666 KOSMET

FILE SEGMENT: scientific, technical

TITLE: PROTECTION OF UNSTABLE VITAMINS, ENZYMES AND NATURAL FREE RADICAL SCAVENGERS BY NOVEL DELIVERY SYSTEMS

AUTHOR: DING L (KOBOL PRODUCTS SARL, 10 AV DE L'EUROPE, 31520 RAMONVILLE ST-AGNE, FRANCE); DELRIEU P

SOURCE: PERSONAL CARE INGREDIENTS ASIA, VOL1, APRIL 7, 1999, SHANGHAI, CHINA, "AN INTERNATIONAL EXHIBITION AND

FOR

CONFERENCE FEATURING RAW MATERIALS AND INGREDIENTS

PERSONAL CARE PRODUCTS", P114-125, 7 REFS  
Availability: STEP Publishing Limited, UK

DOCUMENT TYPE:

Conference

LANGUAGE:

English

AN 23666 KOSMET FS scientific, technical

AB An increasing number of active ingredients have been shown to play an important role in cosmetics against ageing and the maintenance of youthful appearance of the skin. Vitamins, enzymes, plant extracts, in particular, have proved to be highly active free radical scavengers, whitening or peeling agents. However, active ingredients like retinol (vitamin A), ascorbic acid (**vitamin C**), **flavonoids** and enzymes in general are unstable in cosmetic formulations and are thus not widely used in cosmetics. In course of our work on delivery systems adapted to cosmetics applications, we have developed novel delivery systems, which are able to carry and protect such unstable active ingredients. Glycospheres are biomimetic nanoparticles, which copy the structure of the skin cell, the corneocyte.

They are made of cationic polysaccharides, fatty acid and phospholipids and able to entrap both hydrophilic and lipophilic products. In vitro

and

in vivo tests have shown that they can protect unstable active ingredients and enhance their life span. Softspheres are large, coloured,

visible agar spheres. They can trap both lipophilic and hydrophilic active ingredients and decorate formulae. These two types of delivery system give the cosmetic scientist the opportunity to use such unstable active ingredients and target them to the skin

L23 ANSWER 3 OF 4 KOSMET COPYRIGHT 2002 IFSCC

ACCESSION NUMBER:

15940 KOSMET

TITLE:

EXOTIC PLANT EXTRACTS IN COSMETIC PRODUCTS

AUTHOR:

RAUSCHER K (DRAGOCO, AUSTRIA)

SOURCE:

INTERNATIONAL SCIENTIFIC-PRACTICAL CONFERENCE,  
BIOLOGICALLY ACTIVE SUBSTANCES AND NEW COSMETIC  
PRODUCTS, MOSCOW, 26-28 NOVEMBER 1996, 101-102,  
ABSTRACT ONLY

Meeting Organizer: PERFUMERY AND COSMETICS

ASSOCIATION

OF RUSSIA LA LA

DOCUMENT TYPE:

Conference

AN 15940 KOSMET

AB Besides traditional plant extracts used in cosmetic products, Exotic extracts become more and more favor for consumers Exotic fruits are nowadays very common, and because of the international tourism the popularity of exotic fruit extracts for novel products rises. In fact some Exotic fruits contain very interesting active so far used in pharmacy, now offered for cosmetic purpose. a) Ginko. The last surviving member of a plant family which appeared on earth 200 million years ago. Today the Ginko tree is only found in China. The constituents (so-called Ginkgoids) exhibit capillary deleting, vitalizing and strengthening properties. Ginko extract is used in products for normal skin and greasy hair. b) Kiwi. The Kiwi tree is Chinese-Himalayan origin. Today New Zealand is the fruit's main center. The constituents (proteins, aminoacids, **vitamin C**, phosphor and iron) of the kiwi fruit exhibit moisturizing properties, which make the extracts particularly suitable to preparations for the care of normal skin and

dry

hair. c) Coconut. The coconut plant is spread all around the world in tropical coast areas. The nut is used for many purposes, also for cosmetics extracts. The liquid and protein constituents of the coconut extract make it particularly suitable to preparations for sensitive skin.

d) Mango. The Indian originated mango tree is cultivated and tropical and subtropical carotinoids, proteins and fats, so that extract has protecting properties and is used in all kinds of skin and hair care cosmetics and bath products. e) Papaya. The 4 to 6 meter high tree is originated from Central and South America and is cultivated in many tropical and subtropical areas around the world. The constituents of the papaya fruit exhibit skin regenerating. The extract is suitable for the care of normal skin and greasy hair. f) Cacaonut. The cacao tree is cultivated in many tropical areas of America, Africa and Asia. In comparison with cacaobutter the capsule inhibits several activities being interesting for cosmetics (sterins, volatile acids, purines, sugar and vitamins). The cacaonut products are recommended to use in products for greasy hair and especially for sunprotective cosmetics. e) Green tea. Greentea by Chamillia Chinensis is next to water, the most commonly consumed beverage in China, Korea and Japan. For the production of greentea the fermentation of the tealeaves is inhibited, so several active ingredients are preserved (e.g. **flavones**, **flavonoides**, polyphenols) and also the green color of the leaves. The polyphenols have the ability to prevent oxidant damage to cells and have an anti-inflammatory effect. The extract is also recommended for Sun and aftersun products and deoproducts

L23 ANSWER 4 OF 4 KOSMET COPYRIGHT 2002 IFSCC  
 ACCESSION NUMBER: 14167 KOSMET  
 FILE SEGMENT: scientific, technical  
 TITLE: CONTRIBUTION TO THE IDENTIFICATION AND APPLICATIONS OF ACTIVE MATERIALS CONTAINED IN ROSA AFFRUBIGINOSA L. (ROSA MOSQUETA) OIL  
 LOS CONTRIBUCION A LA IDENTIFICACION Y APLICACIONES DE PRINCIPIOS ACTIVOS CONTENIDOS EN EL ACEITE DE ROSA  
 AFF RUBIGINOSA (ROSA MOSQUETA)  
 AUTHOR: PAREJA B (FACULTAD DE FARMACIA Y BIOQUIMICA UN.M.S.M. LIMA, PERU); KEHL H  
 SOURCE: NCP, 1994, 199, 12-19, 71 REFS  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Spanish  
 AN 14167 KOSMET FS scientific, technical  
 AB In Rosa Mosqueta oil the presence of unsaturated fatty acid (oleic, linoleic and linolenic), carotenoids, **flavonoids** and **vitamin C** have been identified. The presence of these components do not explain some actions of the oil (scars reduction, elimination of some type of skin spots and not very deep wrinkles). In this article we present the results leading to the identification of trans retinoic acid that could be the responsible of the important pharmacological and therapeutic properties of Rosa Mosqueta oil, the methods used to isolate and identify the active and the results of the assays realized in 60 volunteers



```
=> s tangerine(w)extract
      14 TANGERINE
      498 EXTRACT
      1519 EXTRACTS
      1740 EXTRACT
          (EXTRACT OR EXTRACTS)
L24      0 TANGERINE(W) EXTRACT
```

```
=> s tangerine(4a)extract
      14 TANGERINE
      498 EXTRACT
      1519 EXTRACTS
      1740 EXTRACT
          (EXTRACT OR EXTRACTS)
L25      0 TANGERINE(4A) EXTRACT
```

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=> file caplus
COST IN U.S. DOLLARS                SINCE FILE      TOTAL
                                     ENTRY      SESSION
FULL ESTIMATED COST                17.96      88.98

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)  SINCE FILE      TOTAL
                                             ENTRY      SESSION
CA SUBSCRIBER PRICE                0.00      -4.96
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FILE COVERS 1907 - 22 May 2002 VOL 136 ISS 21  
 FILE LAST UPDATED: 20 May 2002 (20020520/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

```
=> s tangerine(4a)extract
      703 TANGERINE
      246 TANGERINES
      863 TANGERINE
          (TANGERINE OR TANGERINES)
      22488 EXTRACT
      29089 EXTRACTS
      50545 EXTRACT
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(EXTRACT OR EXTRACTS)  
255609 EXT  
190705 EXTS  
402144 EXT  
(EXT OR EXTS)  
415894 EXTRACT  
(EXTRACT OR EXT)  
L26 26 TANGERINE (4A) EXTRACT

=> s L26 and cosmetic  
39594 COSMETIC  
38910 COSMETICS  
52876 COSMETIC  
(COSMETIC OR COSMETICS)  
L27 3 L26 AND COSMETIC

=> d L27 1-3 ti

L27 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS  
TI Scented body gel having particulate matter in the form of glitter with predetermined shapes

L27 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS  
TI Scented body gel having particulate matter in the form of glitter

L27 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS  
TI **Tangerine peel extracts** as melanin formation inhibitors in skin-lightening **cosmetics**

=> d L27 3 ibib,abs

L27 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1997:119071 CAPLUS  
DOCUMENT NUMBER: 126:161998  
TITLE: **Tangerine peel extracts** as melanin formation inhibitors in skin-lightening **cosmetics**  
INVENTOR(S): Hashizume, Ron; Ootsuki, Yoshikazu; Kamoda, Hironobu  
PATENT ASSIGNEE(S): Adobansuto Sukin Risaachi Kenk, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08337534	A2	19961224	JP 1995-148538	19950615

AB Skin-lightening and antiaging **cosmetics** contg. ethanol **exts.** of **tangerine peel** as melanin formation inhibitors are claimed. A cream contained **tangerine peel exts.** 0.001, white petrolatum 25, stearyl alc. 22, propylene glycol 12, Na lauryl sulfate 1.5, preservatives, antioxidants, perfumes and purified water to 100 wt. parts.

=> s tangerine(4a)peel  
703 TANGERINE

246 TANGERINES  
 863 TANGERINE  
 (TANGERINE OR TANGERINES)  
 21466 PEEL  
 1874 PEELS  
 22657 PEEL  
 (PEEL OR PEELS)  
 L28 100 TANGERINE (4A) PEEL  
  
 => s L28 and L3  
 L29 7 L28 AND L3  
  
 => d his  
  
 (FILE 'HOME' ENTERED AT 14:20:26 ON 22 MAY 2002)  
  
 FILE 'REGISTRY' ENTERED AT 14:20:31 ON 22 MAY 2002  
 E TANGERETIN  
 E E3  
 SCAN E3  
 L1 4 S E3  
 L2 1 S 481-53-8/RN  
  
 FILE 'CAPLUS' ENTERED AT 14:22:12 ON 22 MAY 2002  
 L3 286 S L2  
 L4 3 S L3 AND ASCORBIC  
 L5 1 S L3 AND ELLAGIC  
  
 FILE 'STNGUIDE' ENTERED AT 14:24:46 ON 22 MAY 2002  
 L6 0 S L3 AND HYDROQUINONE  
  
 FILE 'CAPLUS' ENTERED AT 14:30:47 ON 22 MAY 2002  
 L7 1 S L3 AND HYDROQUINONE  
  
 FILE 'REGISTRY' ENTERED AT 14:31:42 ON 22 MAY 2002  
 L8 1 S NOBILETIN/CN  
  
 FILE 'CAPLUS' ENTERED AT 14:32:00 ON 22 MAY 2002  
 L9 224 S L8  
 L10 1 S L9 AND ELLAGIC  
 L11 0 S L9 AND HYDROQUINONE  
  
 FILE 'REGISTRY' ENTERED AT 14:33:36 ON 22 MAY 2002  
 L12 29 S VITAMIN(W)C  
 L13 3316 S ASCORBIC ACID  
 L14 25 S L12 AND L13  
 L15 1 S 50-81-7/RN  
  
 FILE 'CAPLUS' ENTERED AT 14:35:47 ON 22 MAY 2002  
 L16 44854 S L15  
 L17 6 S L3 AND L16  
  
 FILE 'KOSMET' ENTERED AT 14:36:58 ON 22 MAY 2002  
 L18 1 S TANGERETIN  
 L19 1 S NOBILETIN  
 L20 106 S VITAMIN(W)C  
 L21 0 S L18 AND L20  
 L22 0 S L19 AND L20  
 L23 4 S L20 AND FLAVON?  
 L24 0 S TANGERINE(W) EXTRACT

L25 0 S TANGERINE(4A) EXTRACT

FILE 'CAPLUS' ENTERED AT 14:41:38 ON 22 MAY 2002

L26 26 S TANGERINE(4A) EXTRACT

L27 3 S L26 AND COSMETIC

L28 100 S TANGERINE(4A) PEEL

L29 7 S L28 AND L3

=> s L28 and L16

L30 2 L28 AND L16

=> d L29 1-7 ti

L29 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2002 ACS

TI Studies on chemical constituents of processed green **tangerine peel**

L29 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2002 ACS

TI Effects of preparations Aminol Forte and Ethrel on production of polymethoxylated flavones in citrus fruit peel during ripening

L29 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2002 ACS

TI Two New Polymethoxylated Flavones, a Class of Compounds with Potential Anticancer Activity, Isolated from Cold Pressed Dancy **Tangerine Peel** Oil Solids

L29 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2002 ACS

TI Fast separation of polymethoxylated flavones by carbon dioxide supercritical fluid chromatography

L29 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2002 ACS

TI The oxygen heterocyclic compounds of citrus peel oils

L29 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2002 ACS

TI Separation of polymethoxylated flavones by straight-phase high-performance liquid chromatography

L29 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2002 ACS

TI Converting tangeretin to nobiletin

=> d L29 7 ibib,abs

L29 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1971:510192 CAPLUS

DOCUMENT NUMBER: 75:110192

TITLE: Converting tangeretin to nobiletin

INVENTOR(S): Swift, Lyle J.

PATENT ASSIGNEE(S): United States Dept. of Agriculture

SOURCE: U.S., 2 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	----	-----	-----
US 3598841	A	19710810	US 1969-811253	19690327

AB Purified tangeretin (from **tangerine peel** oil) heated with alc. KOH and the dark red mixt. dild. with H<sub>2</sub>O, the mixt. refluxed 2 hr and the alc. removed by distn., the original vol. restored by diln. with H<sub>2</sub>O and the alk. mixt. of anisic acid, 4-MeOC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>Me (I), 2,3,4,5,6-HO(MeO)<sub>4</sub>C<sub>6</sub>CO<sub>2</sub>H (II), and 2,3,4,5,6-HO(MeO)<sub>4</sub>C<sub>6</sub>CO<sub>2</sub>Me (III) extd. with C<sub>6</sub>H<sub>6</sub> to remove I, the alk. aq. soln. satd. with CO<sub>2</sub> and extd. with C<sub>6</sub>H<sub>6</sub>, the H<sub>2</sub>O-washed C<sub>6</sub>H<sub>6</sub> ext. dried and evapd. yielded 56% III. III (85.3 g) and 57 g 3,4-(MeO)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>CHO in 166 ml alc. added with stirring to 800 ml satd. aq. NaOH and kept 18 hr at 20.degree., filtered and the ppt. taken up in H<sub>2</sub>O, the soln. satd. with CO<sub>2</sub> and the pptd. chalcone refluxed 12 hr with SeO<sub>2</sub> in C<sub>5</sub>H<sub>11</sub>OH, the hot filtered soln. distd. in vacuo and the residue crystd. from MeOH gave yellow 5,6,7,8,3',4'-hexamethoxyflavone (nobiletin) (IV), m. 138-9.degree., in 20.8% yield. IV is effective against the fungus Deuterophoma tracheiphila, pathogenic to citrus seedlings and causative of "mal secco" disease.

=> d L30 1-2 ti

L30 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2002 ACS  
TI Development of sausage using a natural resource by-product

L30 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS  
TI The antioxidant and nitrite scavenging ability of waste resource (crab shell, sesame meal, Korean **tangerine peel**) extracts

=> d L30 2 ibib,abs

L30 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2001:725929 CAPLUS  
DOCUMENT NUMBER: 136:117565  
TITLE: The antioxidant and nitrite scavenging ability of waste resource (crab shell, sesame meal, Korean **tangerine peel**) extracts  
AUTHOR(S): Kim, Soo-Min; Cho, Young-Suk; Sung, Sam-Kyung  
CORPORATE SOURCE: Faculty of Life Resources Engineering, Kyungsan University, Kyungsan, 712-240, S. Korea  
SOURCE: Han'guk Sikp'um Yongyang Kwahak Hoechi (2001), 30(4), 589-594  
CODEN: HSYHFB; ISSN: 1226-3311  
PUBLISHER: Korean Society of Food Science and Nutrition  
DOCUMENT TYPE: Journal  
LANGUAGE: Korean

AB Exts. from crab shell, Korean **tangerine peel**, and sesame meals were investigated to det. free radical reaction, lipid oxidn. and nitrite scavenging ability. The recovered ext. from crab shell, sesame meal, and dry Korean **tangerine peel** was chitosan, crude sesamol, and ascorbic acid, which was 11.6%, 2.2%, and 2.8%, resp. TBARS values were lower in the exts. compared to control. Nitrite scavenging and electron donating ability of crude sesamol were higher than other exts. Chitosan showed higher superoxide dismutase (SOD)-like activity, compared to other exts.

=> FIL STNGUIDE  
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SINCE FILE	TOTAL
ENTRY	SESSION

FULL ESTIMATED COST	26.33	115.31
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FILE CONTAINS CURRENT INFORMATION.  
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=> d his

(FILE 'HOME' ENTERED AT 14:20:26 ON 22 MAY 2002)

FILE 'REGISTRY' ENTERED AT 14:20:31 ON 22 MAY 2002

E TANGERETIN

E E3

SCAN E3

L1 4 S E3

L2 1 S 481-53-8/RN

FILE 'CAPLUS' ENTERED AT 14:22:12 ON 22 MAY 2002

L3 286 S L2

L4 3 S L3 AND ASCORBIC

L5 1 S L3 AND ELLAGIC

FILE 'STNGUIDE' ENTERED AT 14:24:46 ON 22 MAY 2002

L6 0 S L3 AND HYDROQUINONE

FILE 'CAPLUS' ENTERED AT 14:30:47 ON 22 MAY 2002

L7 1 S L3 AND HYDROQUINONE

FILE 'REGISTRY' ENTERED AT 14:31:42 ON 22 MAY 2002

L8 1 S NOBILETIN/CN

FILE 'CAPLUS' ENTERED AT 14:32:00 ON 22 MAY 2002

L9 224 S L8

L10 1 S L9 AND ELLAGIC

L11 0 S L9 AND HYDROQUINONE

FILE 'REGISTRY' ENTERED AT 14:33:36 ON 22 MAY 2002

L12 29 S VITAMIN(W)C

L13 3316 S ASCORBIC ACID

L14 25 S L12 AND L13

L15 1 S 50-81-7/RN

FILE 'CAPLUS' ENTERED AT 14:35:47 ON 22 MAY 2002

L16 44854 S L15

L17 6 S L3 AND L16

FILE 'KOSMET' ENTERED AT 14:36:58 ON 22 MAY 2002

L18 1 S TANGERETIN

L19 1 S NOBILETIN

L20 106 S VITAMIN(W)C

L21 0 S L18 AND L20

L22 0 S L19 AND L20

L23            4 S L20 AND FLAVON?  
 L24            0 S TANGERINE(W) EXTRACT  
 L25            0 S TANGERINE(4A) EXTRACT

FILE 'CAPLUS' ENTERED AT 14:41:38 ON 22 MAY 2002

L26            26 S TANGERINE(4A) EXTRACT  
 L27            3 S L26 AND COSMETIC  
 L28            100 S TANGERINE(4A) PEEL  
 L29            7 S L28 AND L3  
 L30            2 S L28 AND L16

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	ENTRY	SESSION
FULL ESTIMATED COST	0.06	115.37

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	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-6.82

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